

A COMPARISON OF CORRESPONDENCE BETWEEN PLANNED AND
ACTUAL STUDY TIME AND BETWEEN ACTUAL AND REPORTED
STUDY TIME AND THE EFFECTS OF A CLASSED-BASED
POINT SYSTEM ON EACH FOR COLLEGE FRESHMEN

An abstract of a Thesis by
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The problem. The effect of a class-based point system on planned, actual, and reported study time was evaluated in this study.

Procedure. Thirteen provisionally admitted university freshmen were required to earn 12,000 points to pass Education 12. Students could earn points at different times by one of the following means: planning to study a minimum of 15 minutes, reporting study a minimum of 15 minutes, increasing the level of actual study to correspond to the level of planning or to the level of reporting. A study area was established in the library and a monitoring system was used to check to see if students were actually studying according to their plans or reports.

Findings. The results of this study demonstrated that a higher degree of correspondence exists between actual and reported study time than between planned and actual study time. The data showed that a classed-based point system was effective in increasing actual study time to better correspond with planned and reported study time.

Conclusions. Actual study can better be monitored and controlled through reported study than planned study.

Recommendations. College counselors should attend more closely to their students' reported study time rather than to their planned study time.

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Chapter 1

INTRODUCTION

College counselors are frequently faced with the problem of helping students improve their study habits. Counselors urge students to develop a "...weekly time plan ...general principles of scheduling...master schedule for the term...(and)...weekly schedule..." (Pauck, 1962, p. 9). The emphasis is on planning for the future: "...before trying to study, decide...clearly, too, it is simpler and more efficient to make these decisions before rather than during the studying...after you finish studying each subject, write yourself a note of what you plan to do next..." (Voeks, 1964, pp. 44-46). "...prepare a time schedule... combine long-range and short-range planning...a general plan for a whole semester...when forced to deviate from your planned work...plan your recreational activities last..." (Raygor, 1965, pp. 542-543).

Since it is impractical for a college counselor or advisor to monitor and reinforce the study behavior of advisees, they have traditionally attended to their student's verbal descriptions of their study behavior. It has been assumed that what a student says he will do will correspond to what he did. Two advantages of a high level of correspondence between a student's verbal description of his study behavior and his actual study behavior are clear:

the actual study could be easily and reliably measured through the verbal behavior, and the actual study could be controlled and manipulated by simply controlling and manipulating the student's verbal behavior.

There are two types of verbal-nonverbal correspondence. First, a say-do correspondence concerns what a person says he will do in the future (planning) and what he then actually does. Second, a do-say correspondence exists between what a person does in the present and what he later says that he did (reporting). The first study concerned specifically with verbal-nonverbal correspondence of the do-say type using preschool children as subjects found that little correspondence existed "naturally" between the play activity a child had engaged in during the early morning and the activity the child reported that he had engaged in one and one half hours later (Risley & Hart, 1968). Do-say correspondence increased when late morning snacks were made contingent upon do-say agreement. This increased correspondence was maintained later when the child's reporting alone was reinforced.

The say-do type of correspondence has been related to college students' study time (Nielson, Lloyd, & Lloyd, Note 1; Cohen, Lloyd, & Lloyd, Note 2). In agreement with the prior study (Risley & Hart, 1968), both of these studies found that little correspondence "naturally" existed between the amount of time the student's planned to study

and the amount of time that they actually studied. Both studies found that say-do correspondence increased when a point contingency was placed on it. Neither study was able to demonstrate maintenance of correspondence when planning alone was reinforced.

Say-do and do-say correspondence were directly compared in an attempt to obtain generalized verbal-nonverbal correspondence (Israel & O'Leary, 1973). Using preschool children, play activities and food reinforcement one group was reinforced for say-do correspondence and another group for do-say correspondence following a baseline period and a period of reinforcement for verbal plans or reports. The reinforcement contingency was effective in increasing correspondence in both groups; the say-do training sequence was more effective than the do-say training sequence in establishing correspondence.

The purpose of the present study was to compare the effectiveness of the two types of verbal-nonverbal correspondence using university students as subjects, planning or reporting of study time as the "saying", study time as the "doing", and points in a university course as a contingent consequence for correspondence.

Chapter 2

METHOD

Subjects

Subjects were thirteen provisionally accepted first semester Drake University students who were requested by their advisors to enroll in a study course. Provisionally accepted students were defined as students who had not met university entrance requirements. They were officially admitted into the university at the end of their first semester if they earned a minimum grade point average of 2.0 for 10 credit hours.

Study Course

The students were enrolled in a one credit hour pass/fail course with no class meetings, tests, or written assignments. A monitored study hall was available for study Monday through Thursday, 6:00 p.m. to 10:00 p.m. for thirteen weeks. Students could pass the course by earning 12,000 points. Each student was able to earn 50 points per day, Monday through Thursday, by filling out and turning in each day a weekly planning and reporting sheet. On this sheet the student indicated how long (in 15 minute units) he planned to study in the study hall that evening and how long he had studied there the previous evening. The students placed this sheet in their mailbox before 12:00 p.m. each

Monday, Tuesday, Wednesday, Thursday, and Friday. A monitor checked each student's study schedule daily and recorded the planned study time for that evening and the reported study time for the previous evening on a master sheet.

Setting

The study hall was located in two areas of the university library in which large tables and individual desks were available. Smoking was permitted in one area. Both areas were open to other university students.

Observation Procedures

Each student checked in with a monitor before entering a study area. Once during each 15 minute interval between 6:00 p.m. and 10:00 p.m. the monitor entered the study areas and recorded if each student who had checked in was present and if he was studying. A student was scored as studying if he was seated at a table or desk, awake, silent, and if his study materials were opened. A student was credited with 15 minutes of study each time he was studying.

Reliability

One day each week for a total of 13 days an independent observer separately recorded studying for each student on the same time schedule used by the monitor. Percent agreement was obtained by dividing the number of

agreements by the number of agreements plus disagreements, times 100. Interobserver reliability was always 92.4 or higher.

Dependent Variables

The following measures were obtained daily for each student:

(1) The number of 15 minute units the student planned to study at the study hall that evening.

(2) The number of 15 minute units the student actually studied at the study hall that evening.

(3) The number of 15 minute units the student reported that he had studied at the study hall the previous evening.

Experimental Conditions

A new study sheet was placed in the student's mailbox each Sunday night. Included on the sheet was the number of points the student had earned the previous week and the manner in which he could earn points the coming week. The maximum number of points a student could earn per day (240) and per week (960) was the same across all conditions during the study. The number of points required to pass the course (12,000) was set at a high level to insure that students would not finish the course early and, thus, leave the experiment before going through the entire sequence of conditions.

Planned Study Baseline (P). Students could earn maximum daily point (240) by writing on their study sheets that they planned to study at least 15 minutes at the study hall that night. No additional points could be earned for planning more than 15 minutes. No points were given for actual study or reported study. This planning condition was used to obtain a baseline measure of the amount of correspondence between planned study time and actual study time when a student was required to plan, but allowed to choose his own level of planning. This baseline seemed to approximate more closely the situation confronting a student undergoing college counseling than a wholly noncontingent point baseline would have.

Planned-Actual Study Correspondence (PAC). Students received 15 points for each 15 minutes of planned study that was matched by (corresponded to) 15 minutes of actual study at the study hall.

Reported Study Baseline (R). Students received maximum daily points for reporting that they had studied at least 15 minutes at the study hall the previous evening. No additional points could be earned for reporting more than 15 minutes. No points were given for actual study or planned study.

Reported-Actual Study Correspondence (RAC). Students received 15 points for each 15 minutes of reported study that was matched by (corresponded to) 15 minutes of actual

study in the study hall.

The thirteen subjects were randomly assigned to two groups, 7 to Group 1 and 6 to Group 2. In order to assess possible order effects of conditions a counter-balanced reversal design was used. Group 1 received the experimental sequence: Planned Study, Planned-Actual Study Correspondence, Planned Study, Reported Study, Reported-Actual Study Correspondence, Reported Study. Group 2 received the same conditions as Group 1 in the reverse order.

Chapter 3

RESULTS

The mean weekly number of 15 minute units of planned, reported, and actual study by Group 1 and 2 are shown in Figure 1. The number of weeks for each condition is in parenthesis on the abscissa. Actual study is plotted as triangles, planned study as closed circles and reported study as open circles. The degree of correspondence between planned study or reported study and actual study may be seen as the difference on the ordinate between the triangles and either the closed or open circles. In all cases there was greater correspondence between studying and reporting than between studying and planning.

Actual Study

The grand mean of 15 minute units per week for actual study was 6.4. Actual study was low during planning and reporting baseline conditions for groups in Figure 1. Studying increased during the correspondence conditions for planning as well as reporting and then decreased when baseline conditions were reinstated.

Planning and Planned-Actual Study Correspondence

Planned study remained at consistently high levels across all conditions in both groups in Figure 1. The mean weekly number of 15 minute units ranged from 21 to 31 in

Group 1, and from 20 to 25 in Group 2.

In Group 1 mean planning remained constant while mean study increased or decreased with the experimental conditions. Planning was relatively independent of actual study. Planning and studying agreed most closely when points in the course were contingent upon correspondence. In Group 2 mean planning varied directly with mean studying. The two measures corresponded less and less as the study progressed. Planning and studying did not agree more closely when points were contingent upon correspondence than when they were not contingent. For both groups actual study was more sensitive than planned study to the experiment conditions.

Reporting and Reported-Actual Study Correspondence

Reported study maintained a level above actual study, but below planned study across all conditions in both groups in Figure 1. When studying was low in baseline conditions, reporting also was low, and when studying increased during correspondence conditions reporting also increased. Mean reporting varied directly with mean studying except during baseline for reporting in Group 1. Reporting corresponded most closely with studying while planning was being reinforced in Group 2.

Individual Students

The mean weekly number of 15 minute units of planned, reported, and actual study for two individual students are in Figure 2. The data of Student 1 from Group 2 were typical of eight of the 13 students who passed the course in the study. The responses of these eight students corresponded closely with the group means shown in Figure 1. The data of Student 2 from Group 2 were typical of two students from Group 1 and three from Group 2. These five students typically planned at high levels, but rarely came to the study hall. Their reporting coincided with their studying. They did not earn the required 12,000 points to pass the course.

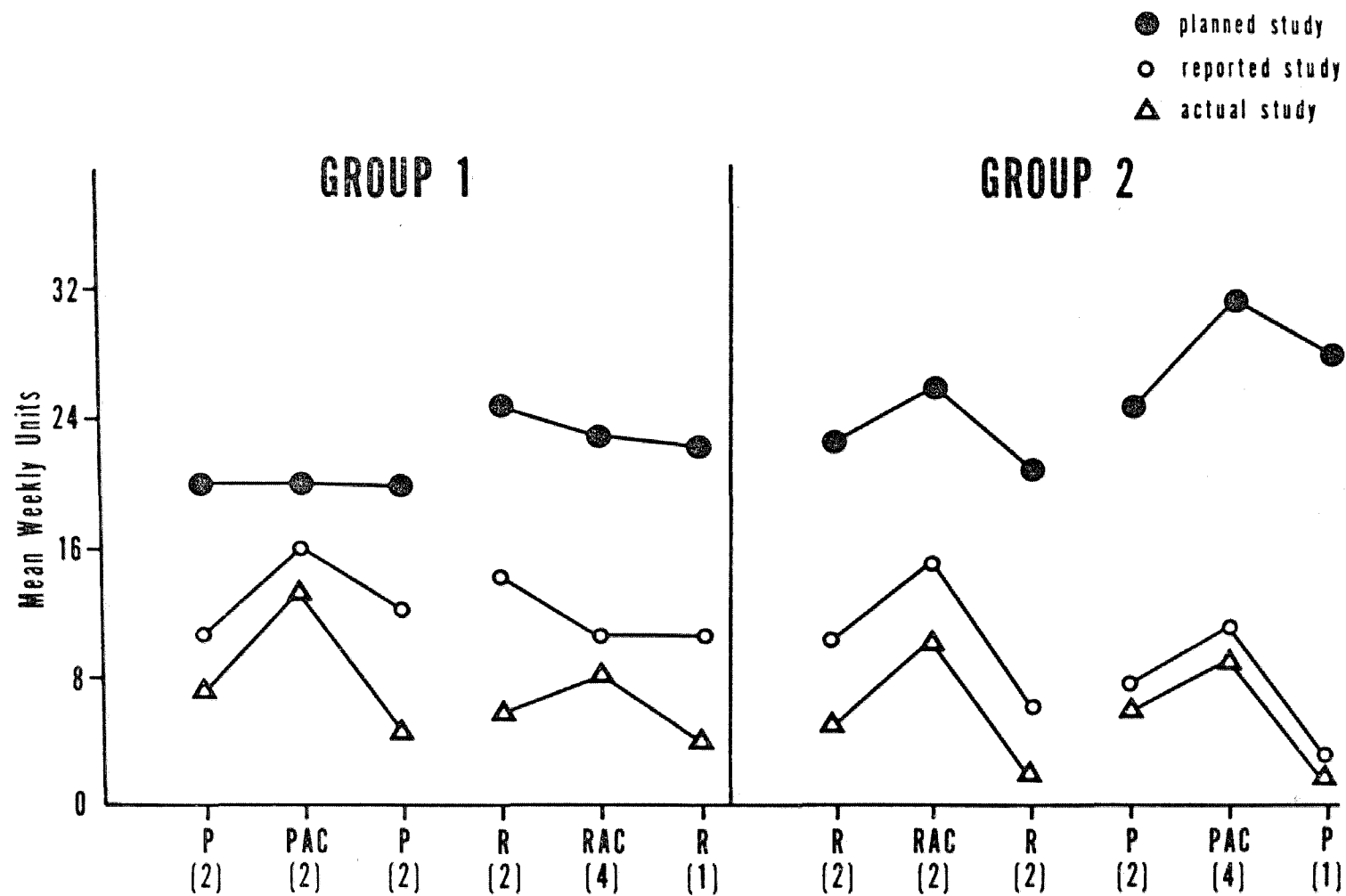


Figure 1. Mean weekly 15 minute units of planned, reported and actual studied times for Group 1 and 2 in each experimental condition. The numbers in parenthesis indicate the number of weeks for each condition.

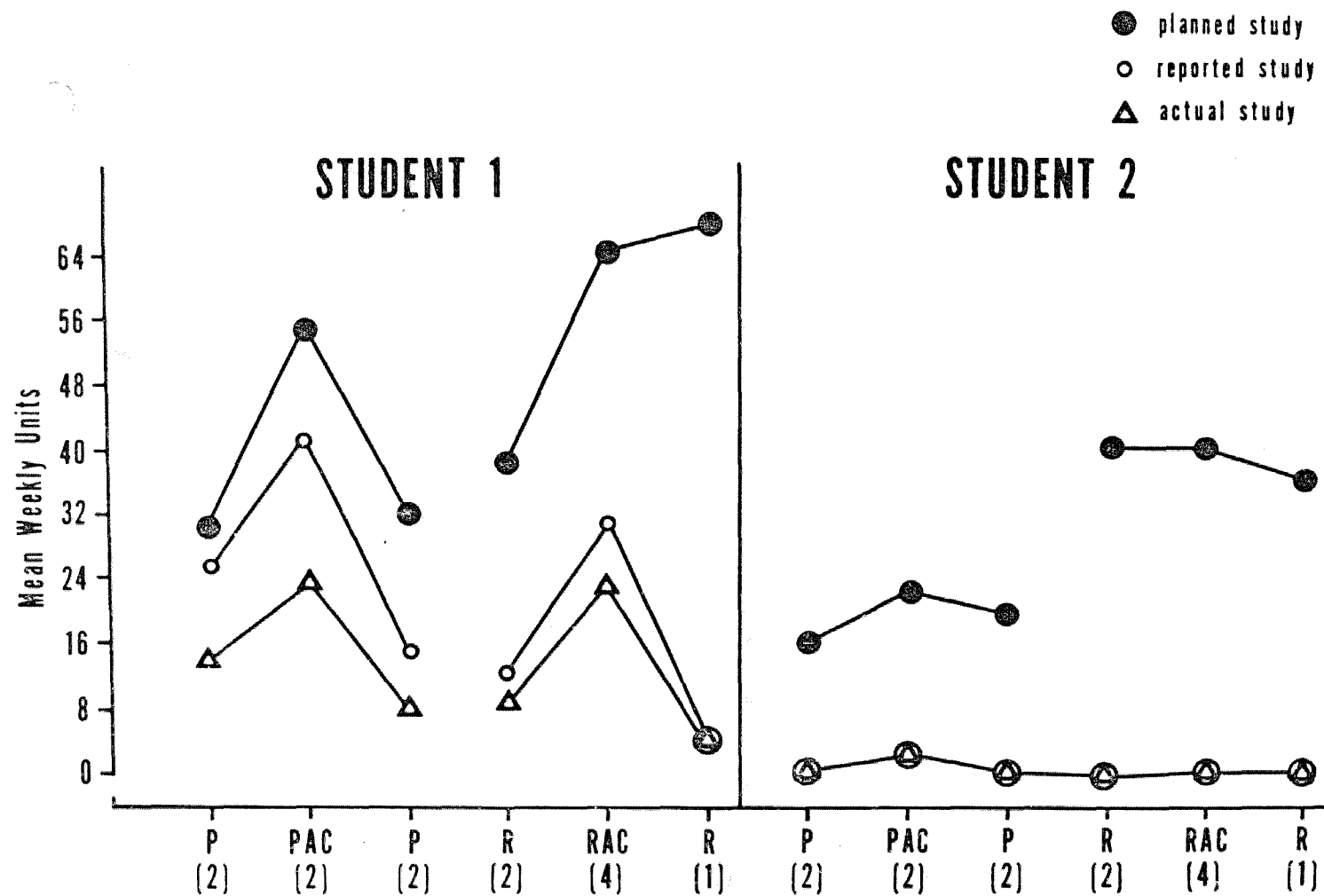


Figure 2. Mean weekly 15 minute units of planned, reported and actual study times for students 1 and 2 in each experimental condition. The numbers in parenthesis indicate the number of weeks for each condition.

Chapter 4

DISCUSSION

Initial baseline data in both groups indicated a greater "natural" correspondence between mean actual study and mean reported study than between mean actual study and mean reported study than between mean actual study and mean planned study. That is, the do-say correspondence exceeded the say-do correspondence. This relationship remained invariant for all experimental conditions for both groups. Examination of the individual data from the 13 students indicated that of the 845 daily observation 698 repeated the same rank order of actual, reported, and planned study. The effect of the point reinforcement condition was to increase the mean amount of time actually spent studying. In Group 1, during the planned-actual study correspondence condition, this increase in study resulted in an increase in correspondence since planning remained constant. When points were given for actual-reported study correspondence the increase in actual study accompanied by a decrease in reported study resulted in increased correspondence. These results suggested that a point contingency can effectively increase actual study and verbal-nonverbal correspondence between both planned and actual study and between actual and reported study. They further suggested that counselors can assign some validity to student's verbal responses.

It is interesting to note that the methods used by the students to increase verbal-nonverbal correspondence were different in the two conditions. In the planned-actual study correspondence condition the students did not alter their verbal behavior (planning), but simply increased their actual behavior. In the actual-reported study correspondence condition students not only increased their study, but also matched their verbal behavior more closely to their actual behavior by decreasing their reports. This difference between planning and reporting together with the fact that study increased to a higher level in the planned-actual study correspondence condition than the actual-reported study correspondence condition is a possible critical comparative difference between these two types of correspondence and an indication of how each can be used most effectively. That is, during the planning correspondence condition the controlling variables from the students' point of view appeared to be increased study while during the reporting correspondence condition the controlling variables were on accuracy. These different forms of stimulus control of the desired behavior may be based on students' histories of reinforcement--planning has been shaped as a discriminative stimulus to control future responding while past responding acts as a discriminative stimulus for later reporting.

The present results are directly opposite to those

reported from the one previous direct comparison of say-do and do-say correspondence (Israel & O'Leary, 1973). The two experiments differed at least with respect to: experimental subjects (university students and preschool children); responses (studying and play activities); response frequencies (studying, a relatively low frequency response as compared to playing, a high frequency response already in the subjects' response repertoire); experimental designs (counter-balanced reversals and multiple baseline across plan activities, between groups comparison and within subject); and measures of correspondence (number of daily 15 minute time units actually matched and a yes or no match regardless of time or amount). Any or all of these could have contributed to the different results.

Israel and O'Leary (1973) interpreted their results as "...consistent with the interpretation that (subjects) in the say-do condition had learned to use their verbal behavior to 'direct' their nonverbal behavior..." since more of their say-do subjects achieved higher levels of correspondence than their do-say subjects. A comparable interpretation for the present results would that past responses of studying are a more effective discriminative stimulus for controlling present reporting of these responses than present planning of future responses of studying is for controlling those future responses. Stated another way, since discriminative stimuli precede the

responses they control in time, it is reasonable that planning should have controlled reporting. This interpretation is more parsimonious than that of Israel and O'Leary (1973) in that there is no need to appeal to differences in verbal-nonverbal control. These two interpretations again suggest the critical value of the two different ways students achieved correspondence in the present study. If the emphasis is placed on increasing actual behavior and not on accuracy of the verbal, as it was in the Israel and O'Leary (1973) study a say-do correspondence procedure is more effective, but if the emphasis is placed on accuracy as it was in the actual-reported correspondence condition in the present study then the do-say correspondence is more effective.

The above conclusions and interpretations are tentative since the data from Group 2 were not in agreement with those of Group 1. The point reinforcement condition resulted in parallel increases in studying, planning, and reporting in both the planned-actual correspondence condition and actual-reported correspondence conditions. That is, the students did not increase the accuracy of their verbal-nonverbal behavior. These students were actually responding most appropriately to the contingencies since they lost nothing for over-planning or over-reporting. If the contingencies had included point loss for each unit of discrepancy between verbal and actual study the results for

both groups would probably have been much different.

Israel and O'Leary (1973) concluded that "...if one desired to train correspondence, a say-do sequence would be more appropriate...." The overall results from both groups suggested that a counselor of university students would do well to consider a do-say sequence if the primary available access to the students' behavior is their saying rather than their doing. Instead of planning a daily, weekly, monthly study program in advance on Monday mornings the counselor may profit from receiving the past day's or week's report on Friday afternoon.

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